

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion is respectfully requested.

Claims 1-10 and 12 are currently pending in the application. No claim amendments are presented. Thus, no new matter is presented.

In the outstanding Official Action, Claims 1, 3-4 and 12 were rejected under 35 U.S.C. § 103(a) as anticipated by Lindsay et al. (U.S. Patent Publication No. 2002/0009070, hereinafter "Lindsay") in view of Ida et al. (U.S. Patent Publication No. 2002/0082036, hereinafter "Ida"); and Claims 5-10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Lindsay in view of Ida, and in further view of Raith (U.S. Patent No. 6,711,408, hereinafter "Raith").

The Official Action has rejected Claims 1, 3-4 and 11-13 under 35 U.S.C. § 103 as being unpatentable over Lindsay in view of Ida. The Official Action cites Lindsay as disclosing the Applicants' invention with the exception of a communication control apparatus reserving wireless resources of a selected handover destination candidate. To remedy this deficiency, the Official Action cites Ida as disclosing this claimed feature and states that it would have been obvious to one of ordinary skill in the art at the time the invention to combine these references to arrive at the Applicants' claims. Applicants respectfully submit that Ida fails to teach or suggest the claimed feature for which it is cited as a secondary reference under 35 U.S.C. § 103.

Briefly recapitulating, Claim 1 relates to a handover control method in which a mobile station is able to handoff between base stations when a communication quality value between the base station and the mobile station falls below a first threshold. The control apparatus selects at least one handover destination candidate from among a plurality of base stations and reserves the resources of at least one of the selected handover destination candidates.

The control apparatus then notifies the mobile station of a handover destination candidate for which resources are reserved and the mobile station switches base stations based on the information received from the control apparatus.

In the conventional method, including a soft-handover, the wireless resources available in the destination base station are not considered; therefore, when a request for a handover is sent to a base station the communication may be dropped.¹ The method disclosed in amended Claim 1 avoids this problem by reserving the resources in the destination base station before handover is performed.²

Turning to the applied reference, Ida describes a method for performing soft handover in a code division multiple access (CDMA) mobile communication system by allowing the base transceiver station host equipment (4) to determine the better base station for communications based on the magnitude levels of the reception of the signals from the base transceiver stations (2) at the mobile station (3).³ At the time of switching, the same data is transmitted from the current and destination base station transceivers to the mobile station.⁴

The requirements for a *prima facie* case of obviousness are (1) there must be some suggestion or motivation in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art reference must teach or suggest all the claim limitations. It is respectfully submitted that the outstanding Official Action fails to make a *prima facie* case of obviousness, because Ida fails to teach or suggest the reservation of resources in a base station by a network controller, as recited in Claim 1.

Amended Claim 1 recites, *inter alia*, a handover control method, comprising:

¹ Specification at page 3, lines 2-8.

² Specification at page 4, line 34 through page 5, line 3.

³ Ida at paragraph [0053].

⁴ Id.

“...said communication control apparatus reserving
wireless resources of said at least a handover destination
candidate communication apparatus which is selected...”

In reference to the above-cited feature recited in Claim 1, the outstanding Official Action states that Ida “disclosed the method of performing soft handover in which it means that the selected candidate base station must be available and capable to handle the handover process without breaking during conversation of the mobile station.”⁵ However, there is no basis for the assertion that the selected candidate base station must be capable of handling the handover process in Ida. It may be the case that a selected base station emits a specific power level to the mobile device, which power is then reported to the controller resulting in the selection of this base station as a handover candidate. However, no reservation of resources takes place in this procedure, much less reservation of resources by the controller.

Accordingly, Ida fails to teach or suggest that the communication control apparatus *reserves* wireless resources in the selected base station. At best, the communication control apparatus in Ida identifies a base station handover candidate base on received power parameters and instructs the mobile device to attempt to connect with the base station. However, Ida fails to teach or suggest that the communication controller reserves resources in the selected base station.

Ida may suggest allocation of wireless resources when a handover is performed; however, “allocation” is different from “reservation”. Should “allocation” be interpreted as “reservation” in the Official Action, the reservation (allocation) is performed in a process of a handover after the base station receives a request of a handover and is determined to perform handover as discussed in Ida. In this conventional method, if the resource is not available in the base station, the handover fails. On the other hand, the resource reservation in the present

⁵ Outstanding Official Action, at page 2.

invention is performed when the communication quality value falls below a second threshold which is better than the first threshold, namely, before it is determined to perform handover.

The Official Action further states that “the reserve resources process is inherently taking place in order for the mobile station to be able to connect to the newly selected base station.”⁶

“In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” See Ex parte Levy, 17 USPQ2d 1461, at 1464 (Bd. Pat. App. & Inter. 1990) and MPEP § 2112.

However, as discussed above, in a conventional soft handoff procedure, the controller simply instructs the mobile device to contact a selected base station, or the mobile device is already in contact with the base station to receive power measurements which are reported to the controller. Thus, the communication controller does not *reserve resources* in the selected base station, but instead simply informs the mobile device of candidate base stations for handover, thus leaving the mobile device to establish communications with the candidate base station. Thus, the reservation of resources by the controller does not necessarily flow from Ida’s description.

Accordingly, Applicants respectfully request the rejection of Claim 1 under 35 U.S.C. § 103 be withdrawn. For substantially the same reasons as given with respect to amended Claim 1, it is also submitted that amended Claim 12 patentably defines over the prior art of record.

As discussed above, Lindsay neither alone nor in combination with Ida, disclose or suggest applicants method of a communication control apparatus reserving wireless resources of said at least a selected handover destination candidate communication apparatus.

⁶ Id.

Likewise, Raith does not remedy this deficiency, and therefore, none of the cited references, either alone nor in combination, teach or disclose Applicant's Claims 5-10 which include the above-distinguished limitation by virtue of dependency. Therefore, the Official Action does not provide a *prime facie* case of obviousness with regard to any of these claims.

Accordingly, Applicant respectfully requests that the rejection of Claims 5-10 under 35 U.S.C. §103(a) be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1, 3-10 and 12 is patentably distinguishing over the prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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